

# OWNERS OPERATING MANUAL

and PARTS LIST

MODEL 2380-1  
22 INCH  
SELF-PROPELLED  
ROTARY MOWER  
(ELECTRIC START)



0611-694

PRINTED IN U.S.A.

# YARD-MAN

J a c k s o n   M i c h i g a n

## **RULES FOR SAFE OPERATION**

Your rotary mower is a precision piece of power equipment. Engineering skill and experience have been combined to provide the ultimate in safety and efficiency, however, as with any type of power equipment, carelessness or error on the part of the operator can result in injury. Exercise extreme caution at all times.

1. **KNOW YOUR MACHINE** Read the Owner's Manual carefully - learn how to operate your mower properly.
2. **MAKE SURE THE LAWN IS CLEAR** of sticks, stones, wire and other hazardous items from lawn before mowing. Such items are dangerous to both the mower and individuals in the vicinity of the mower.
3. **ADD FUEL** before starting engine - - - never when engine is hot or running.
4. **ALWAYS STOP ENGINE** and disconnect sparkplug wire before attempting any repairs or adjustments.
5. **START THE ENGINE CAREFULLY** Always stand at side opposite discharge chute. **NEVER** place hands or feet under mower or near discharge chute while engine is running.
6. **DO NOT TILT MOWER** at extreme angle while engine is running. Cut grass on hills and banks sideways.
7. **STOP THE ENGINE** when not cutting grass.
8. **DO NOT ALLOW MINORS** to operate mower unless thoroughly instructed and properly supervised.
9. **KEEP CHILDREN AND PETS AWAY** from area at all times during mowing operation.
10. **DISENGAGE ALL BLADE AND DRIVE CLUTCHES** before starting units so equipped. Do not attempt to start engine while mower is resting in high grass.
11. **ALWAYS CHECK FOR DAMAGE** If you should strike some foreign object while mowing, stop your mower. Inspect for and repair any damage before restarting and operating the mower.

## **LAWN CARE**

1. It is not advisable to cut off more than 1/3 of the total length of the grass at any one mowing.
2. When mowing thick, lush wet grass, start at outside of lawn and mow in counter-clockwise direction to prevent mower from recutting clippings from previous rounds.
3. When mowing thin or dry grass, start at outside of lawn and mow in clockwise direction to progressively discharge clippings to center of lawn where they can easily be removed.
4. Recommended normal cutting heights for different types of grass:

1½ to 2½ — Med. to Med. High	Marion blue grass	1 to 1½ — Low to Med. Low.	Bermuda
1½ to 2½ — Med. to Med. High	Kentucky blue grass	1 to 1½ — Low to Med. Low.	Zoysia
1 to 2 — Med. - Low to Med.	Fescues	1 to 2 — Med. - Low to Med.	Bent grass
1 to 2 — Med. - Low to Med.	Rye grass		

## **USING GRASS CATCHER**

1. When using grass catcher, operate mower engine at ¾ to full throttle.
2. In heavy dense turf, set cutting height in medium to high position and mow in a counter-clockwise direction so the catcher will not drag in the uncut portion.
3. Allow wet grass to dry before attempting to mow with grass catcher attached.
4. Empty catcher bag thoroughly before storage.

## **SUGGESTIONS FOR MORE EFFICIENT, AND MAINTENANCE-FREE OPERATION**

### **GENERAL MOWING**

1. Always keep mower blade "Knife" sharp and balanced for maximum cutting efficiency.
2. Always start engine with mower on level surface where blade will not drag on tall grass or other abstractions. After starting, let engine warm up several minutes at slow speed before starting to mow.
3. When mowing under normal conditions, run mower at  $\frac{1}{2}$  to  $\frac{3}{4}$  throttle for best results.
4. When cutting tall heavy growth, or on rough ground, place mower in highest cut position and gradually reduce to desired cutting height over course of two or three mowings.

### **MAINTENANCE**

Your mower like all machines with moving parts must receive care and maintenance. The following tips, if used, will contribute many trouble-free hours to your mower.

1. Check oil level frequently. When checking or changing oil, make sure dirt and debris is cleaned off oil sump before removing oil plug.
2. Keep mower clean, especially the engine and underside of mower housing. See washout port on Pg. 6.
3. Check all nuts, bolts and screws occasionally to be sure mower is in good operating condition.
4. Should excessive vibration develop, check your blade and crankshaft immediately. Do not operate mower with an unbalanced blade, a damaged blade or a damaged crankshaft.
5. The wheel bearings are pre-lubricated at the factory and should require no further attention until mower is serviced. However, it is advisable to remove the wheels and apply a small amount of light oil to each axle, at least once a season.
6. If you are going to store your mower for any length of time (30 days or longer) it is important that the following steps be taken:
  - a. Drain the gas tank. Start the engine and allow it to run out of gas. Gasoline left in the engine will leave gum deposits in the carburetor and gas tank.
  - b. Clean engine of all foreign matter.
  - c. Lubricate cylinder by removing the spark plug and pouring one ounce of clean lubricating oil through the spark plug hole into the cylinder. Crank engine slowly to spread oil and replace spark plug. To start after storage remove spark plug and rotate engine with starter to remove excess oil.
7. Just as your automobile needs professional mechanical maintenance from time to time, so does your air cooled engine. A yearly tune-up and check by a qualified service center is recommended to avoid breakdowns and unnecessary delays during the cutting season.

### **TO RECHARGE BATTERY**

Plug the charger into a 120 V AC outlet and the charger cord into the connector on the rear cover of the mower to recharge. It is not possible to overcharge the battery and as current demand is extremely low, leave the charger connected as much as possible during the entire mowing season.

NOTE: If the temperature is below 40° F move the battery to a warmer area before charging. (The battery can be removed from the mower if necessary). As this battery will not freeze, it is not necessary to maintain a charge except during the mowing season.

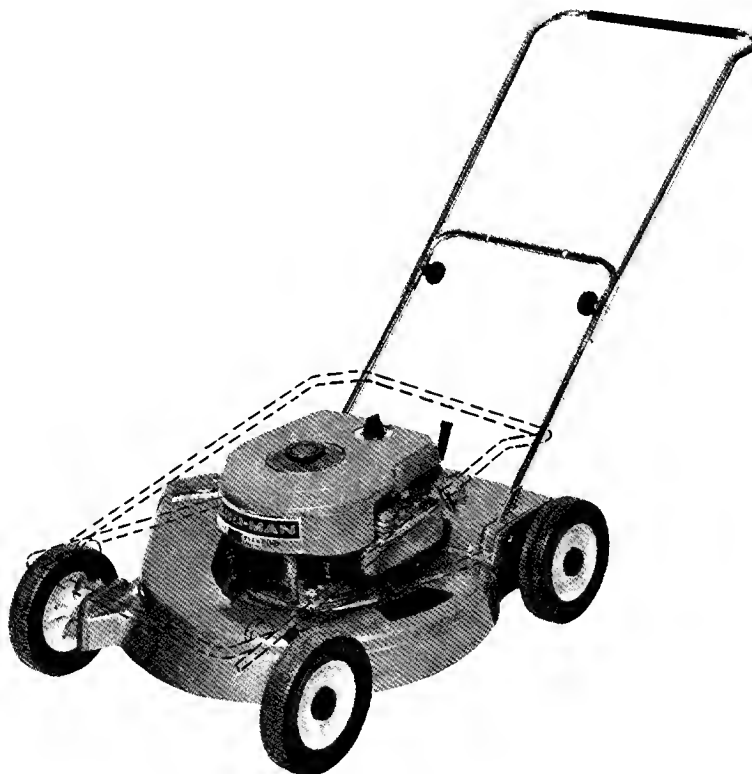
## PREPARING YOUR YARD-MAN MOWER FOR USE

### SET UP

Your mower is shipped in one carton completely assembled with the handle assembly in the shipping or storage position. To remove your mower from the carton, slit the end of the carton and roll the mower out. **DO NOT** attempt to lift the unit by the engine shroud.

To place the handle in operating position, press the upstop lever to release the handle then lift the handle assembly until the lower section snaps into the operating position as shown. The upper section can now be fitted into place. Fasten the upper and lower sections together with the handle mounting knobs.

**NOTE:** Make sure the handle knobs are loose enough to allow the upper section to pivot freely around the mounting bolts when placing the handle in either operating or storing position.



### BEFORE STARTING ENGINE

Remove oil fill plug and fill the crankcase with S.A.E. No. 30 oil. (1¼ pints approx.)

Fill fuel tank with a good grade regular clean, fresh gasoline. **DO NOT MIX OIL WITH GASOLINE.** FOR COMPLETE ENGINE INFORMATION, READ ENGINE INSTRUCTION BOOKLET BEFORE STARTING ENGINE.

### BATTERY CARE

Your Yard - Man mower has a battery charging system built into the charger cord. Charge the battery before initial use (6 to 12 hours) and continually thereafter whenever the mower is not in use during the mowing season. To maintain a charge, simply plug the charger cord into a 120 volt AC outlet.

**NOTE:** New batteries are partially charged and will require an initial charge of 20 to 24 hours to become fully charged. A 6 to 12 hour initial charge should be sufficient for a number of starts.

## TO START ENGINE

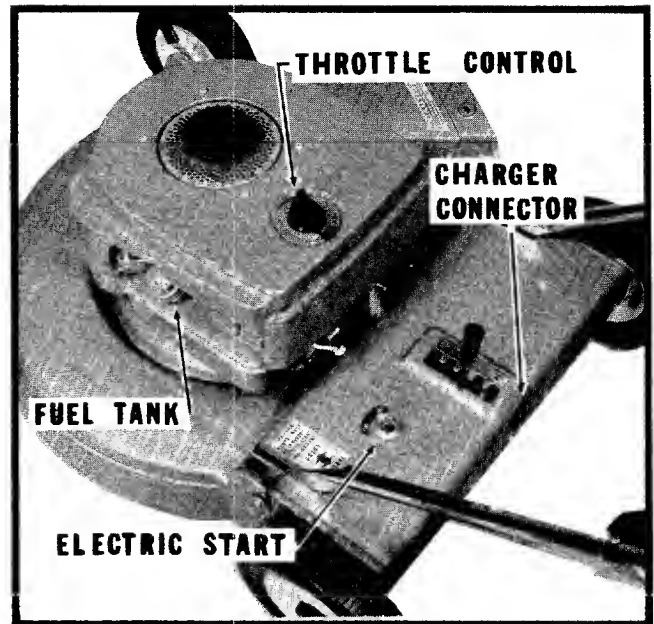
1. Move throttle control to start position or midway in run position.
2. Turn key to start position and hold until the engine starts—then release.
3. When engine starts, move throttle control knob to run position (slow speed) until engine warms up.

**NOTE:** The fuel tank should be completely full before starting for the first time.

**IMPORTANT:** If engine floods, place throttle control knob in "Start" position and turn the engine over for about four or five seconds. Then reposition control lever to "Run" position and start engine.

Engine flooding is usually caused by a dirty air cleaner. Service air cleaner regularly as noted in engine operation and maintenance instruction.

If engine continues to flood even with a clean air filter, lean carburetor adjustment screw 1/8 turn (See engine instructions)



## TO STOP ENGINE

To stop the engine, turn key to "OFF" position. The engine may also be stopped by moving throttle control to "STOP" position.

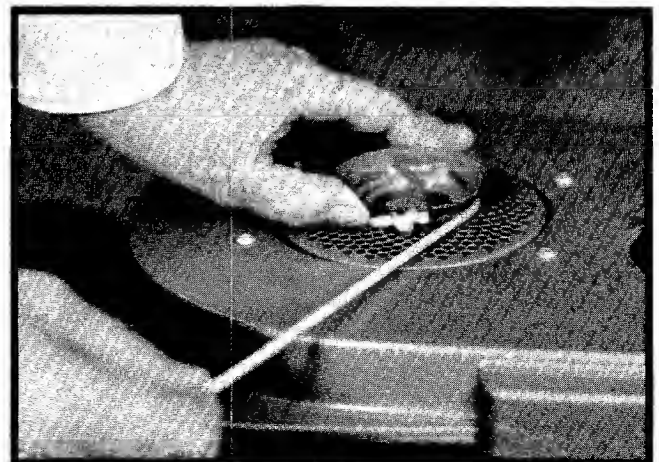
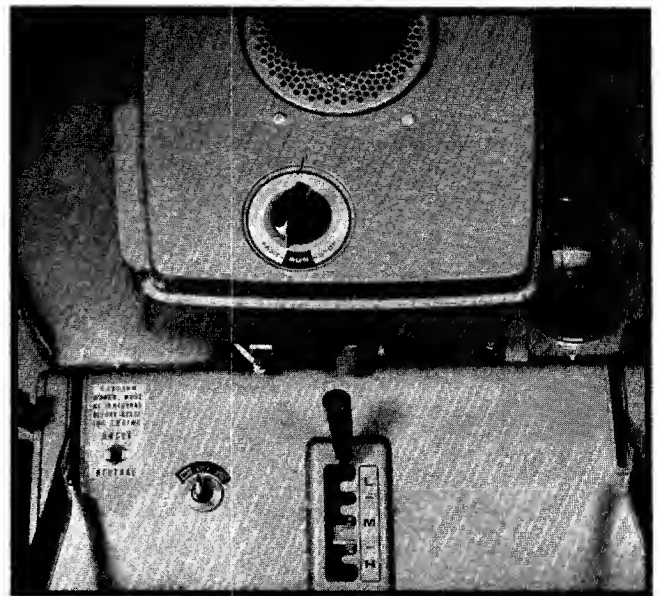
## TIPS TO OBTAIN BEST ELECTRIC STARTER PERFORMANCE

- a. Short starting cycles (2 to 3 seconds) provide the longest battery life.
- b. Keep the battery fully charged. This assures quick, and easy starts. (See Pg. 3)
- c. Start engine with mower on sidewalk or driveway where the cutting blades are out of the grass in an unloaded condition. If starts must be made on the lawn, move mower over previously cut grass
- d. Keep the underside of the mower deck clean. Periodically scrape or wash away any built up grass which might add resistance to the cutter blade and electric starting system. (See Pg. 6 for instructions on use of wash out port.)

**AUXILIARY ROPE STARTER** can be used to start the engine if the batteries run low, or if the engine cannot be started electrically. Remove the plastic cover as shown. Place engine control in "FAST" and key in "On" position. Place rope knot in the impression and wind rope clockwise around pulley and over the knot holding it in place. Pull rope rapidly. Repeat if necessary. (**NOTE:** Auxiliary starter rope is supplied with your mower.)

## CAUTION

Always remove the key from the switch when leaving your mower unattended or when mower is not in use.



## OPERATING INSTRUCTIONS

This mower is constructed with a "Dead Man" handle. When the handle is down the drive unit is in neutral, when the handle is up the drive (self-propelling) unit is engaged. TO PROPEL THE MOWER FORWARD, simply raise the handle—TO STOP THE MOWER, lower the handle.

**CAUTION:** The blade is moving whenever the engine is running. Never place your hands or feet in the discharge opening or under the blade housing while the engine is running.

## BREAK-IN PERIOD

During the first ten hours of operation, check the following items frequently:

- Oil Level
- All nuts, bolts and screws for tightness
- Condition of Blade

## TO CHANGE OIL

Engine oil should be changed after the first 5 hours of operation and each 25 hours of operation thereafter.

Drain oil while engine is warm. Disconnect spark plug wire and secure at least 1" away from spark plug. Block right hand side of mower up about 4" high and set shallow one quart container beneath oil drain. Remove oil drain plug from sump and allow oil to drain completely. Replace plug and refill with S.A.E #30 oil. (1 1/4 pints approx.)

## TO ADJUST HEIGHT OF CUT

This mower is equipped with individual wheel adjust levers on the front wheels. The rear wheels are adjusted with the single control. To obtain the proper cutting position desired, it is important that all three wheel adjusters are in the same cutting height.

### WHEEL ADJUST — FRONT

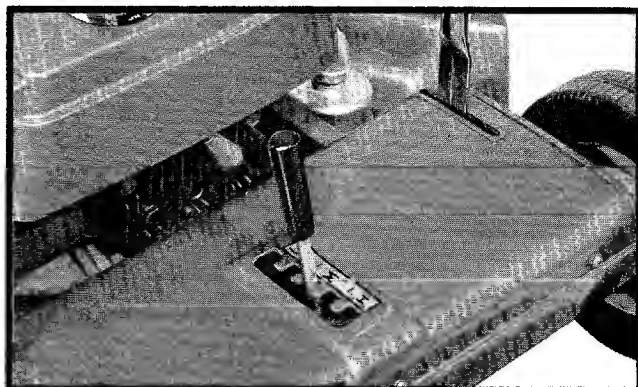
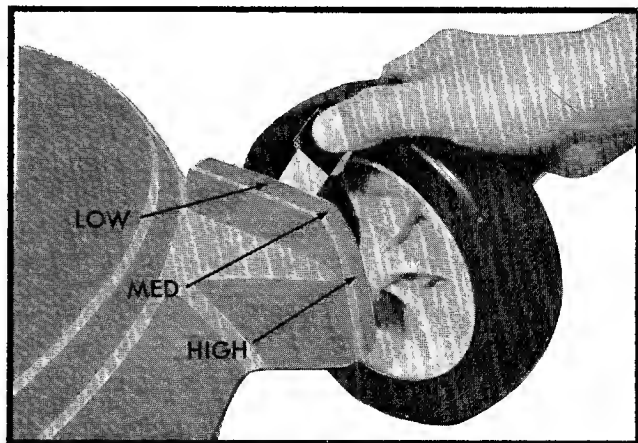
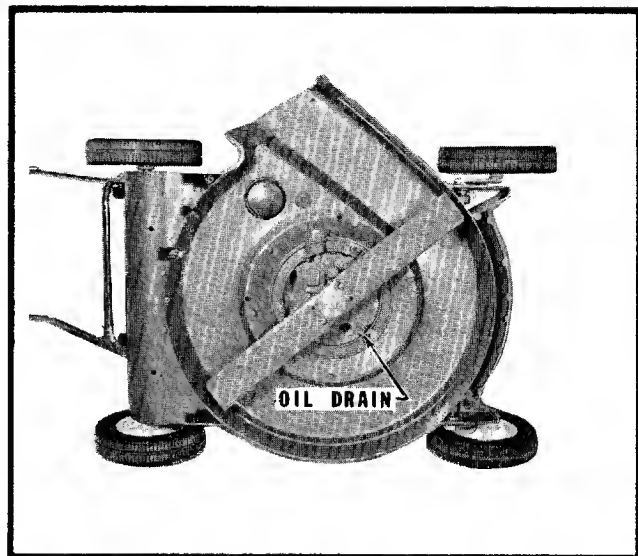
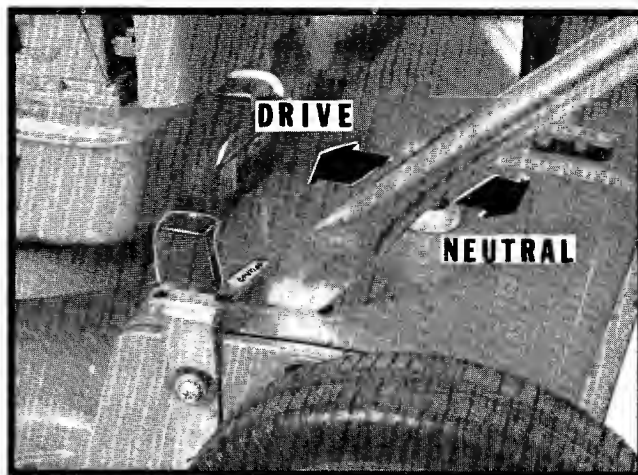
The front wheel adjust levers can easily be adjusted from low to high cut. Place your hand on the outside of the wheel, spring the adjusting lever, with your thumb, outward until the locating trunnion on the lever is free from the housing. Move the wheel and lever to the height of cut desired. Release the lever, allowing the trunnion to drop into the proper locating hole.

### WHEEL ADJUST — REAR

The rear wheel adjust is a single lever action which adjusts both rear wheels at the same time. To adjust press the spring loaded handle out of the detent and move it to the proper detent for the cutting height desired.

The rear adjust mechanism has a counterbalancing spring to help compensate for the weight of mower when moving from high to low position.

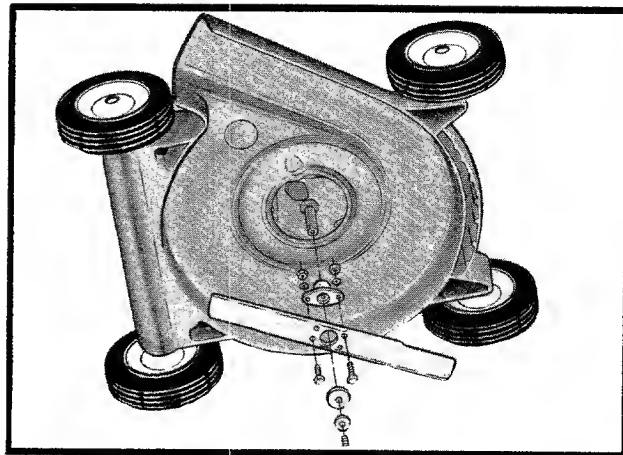
**CAUTION:** NEVER MAKE ADJUSTMENTS WITH THE ENGINE RUNNING.





## TO REPLACE BLADE

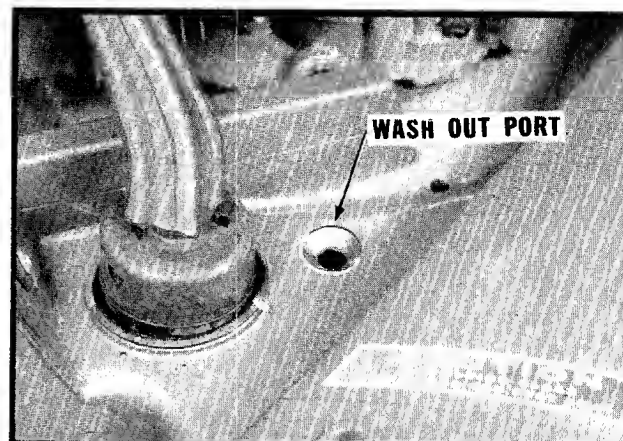
1. Be sure engine is stopped, disconnect spark plug wire and secure at least 1" away from spark plug.
2. Tip mower on the side and remove the blade and adaptor from engine crank.
3. Remove the blade from the adaptor and replace with a new blade. Reassemble to engine.
4. Resharpening of an old blade should only be attempted by a Wards Service Center. This way proper blade balance will be maintained.



## TO USE WASH OUT PORT

After mowing, place hose end (without nozzle) into opening located next to discharge chute. Using moderate water pressure, run engine at full throttle speed for about two minutes. This flushes out accumulations of grass clippings from underneath mower housing. DO NOT wash the top. It may be necessary to tilt the mower back on the rear wheels after washing to drain any water which may have accumulated on the top of the housing.

**CAUTION:** Never place your hands or feet in the discharge opening or under the blade housing while the engine is running.



## STORAGE

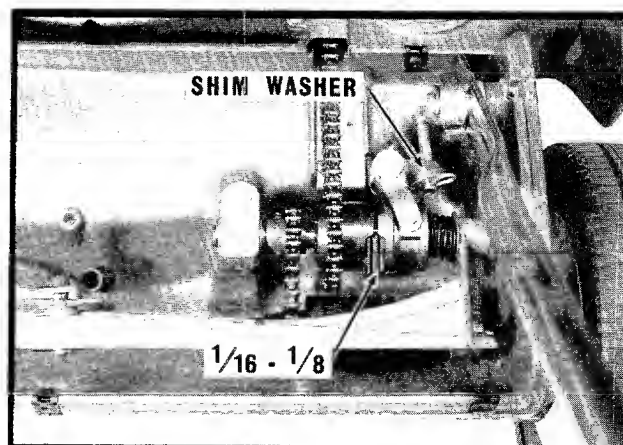
Your mower is equipped with a folding handle for ease of handling during transport or for storage. To place your mower in storage, release the upstop latch as shown and fold the handle assembly forward, loosen the handle knobs and fold the upper handle section back.

Note: For engine storage refer to Page 3 under Maintenance.

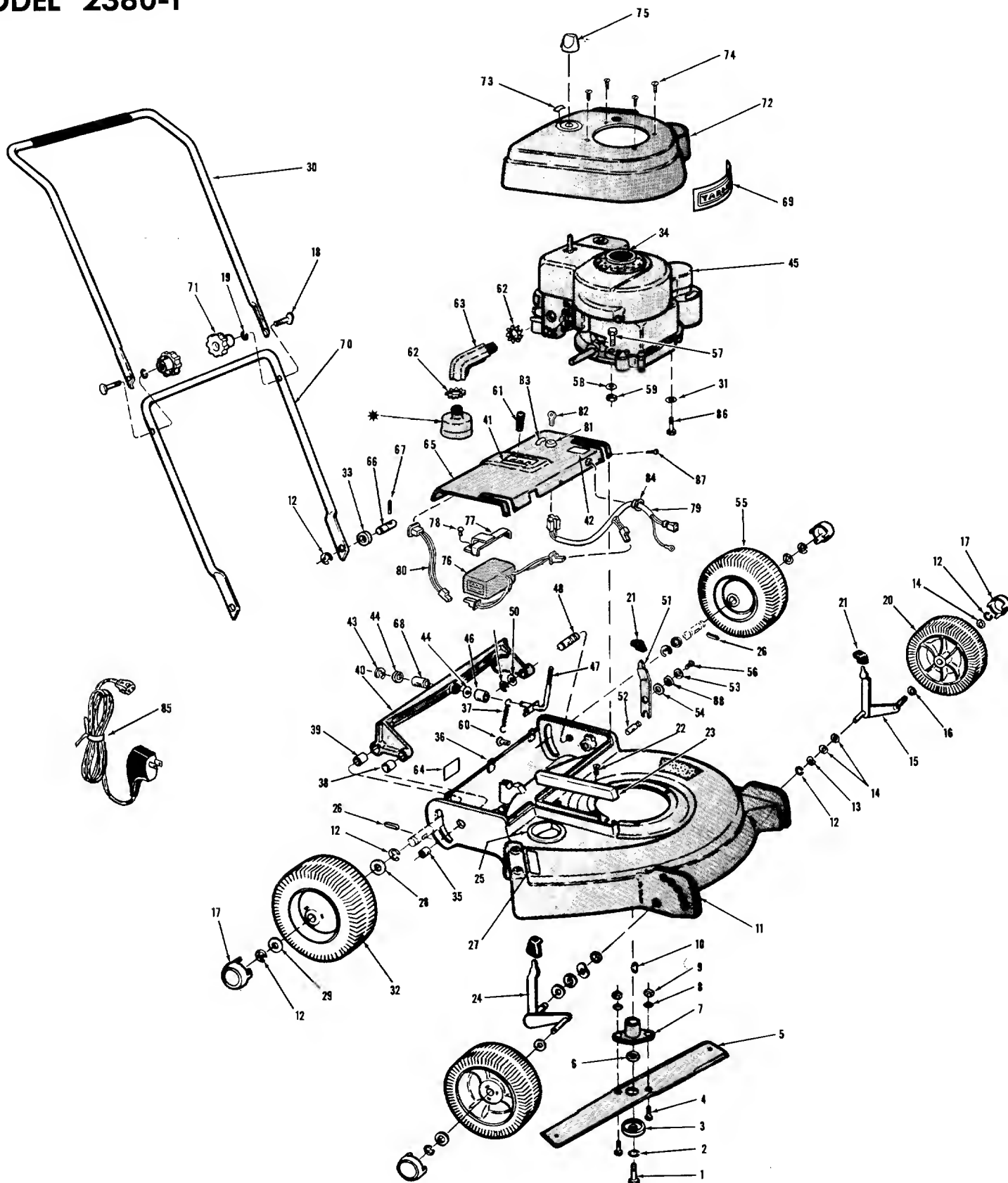


## CLUTCH ADJUSTMENT

After 40 hours of operation the clutch dogs should be checked for proper adjustment. With the handle in the down (disengaged) position the clearance between the dogs should be  $1/16$  to  $1/8$  inch. If adjustment is needed—place the handle in an upright position, remove the hairpin from the connecting pin and add another flat washer of comparable size approximately  $1/32$  thick between the two hardened washers.



# MODEL 2380-1



ALL UN-NUMBERED PARTS  
INTER-CHANGEABLE WITH  
OPPOSITE SIDE.

For Parts List—See Pg. 9



# PARTS LIST

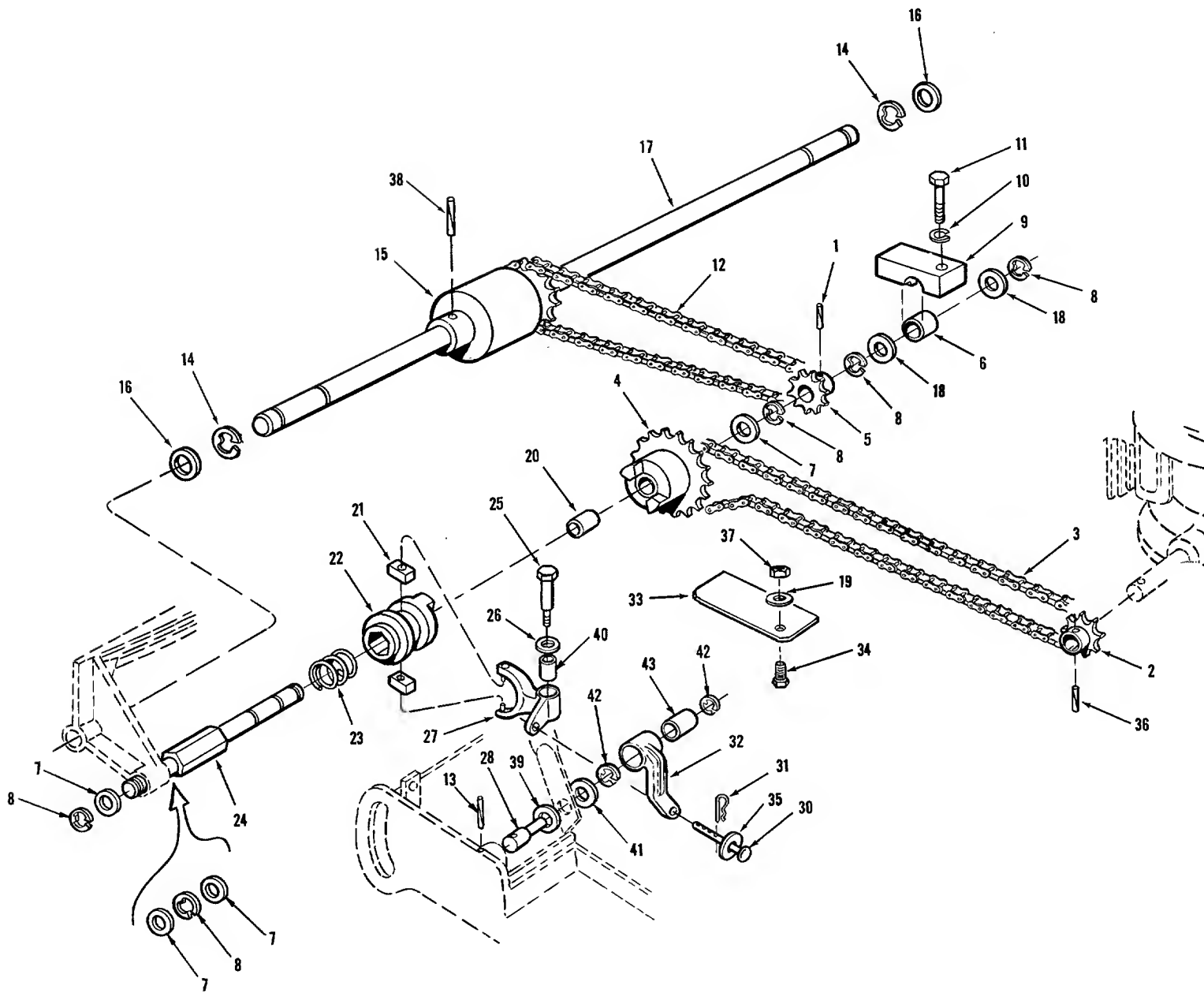
## MODEL 2380-1

Your Mower is right hand (R.H.) or left hand (L.H.) as you Mow.

REF. NO.	PART NO.	NAME OF PART	REF. NO.	PART NO.	NAME OF PART
1	1509-101	Bolt (3/8-24 x 1 1/2 Hex Hd. Lock) ....	45		Ass'y—Engine Briggs & Stratton Model 92988—Type 1031-01 ....
2	1542-8	*Lockwasher (3/8 Split) .....	46	1624-183	Spacer .....
3	1543-39	Washer—Special .....	47	1155-23	Ass'y—Lever & Bracket .....
4	1509-34	*Bolt (1/4-20 x 3/4 Hex Hd.) .....	48	1547-46	Pivot Pin .....
5	3604-40	Blade—Grass .....	49	1650-44	Retaining Ring .....
6	1624-135	Washer (3/8 x 1 x .210) .....	50	1546-25	Washer (7/16 x 1 x 1/32) .....
7	1143-5	Ass'y—Blade Adaptor .....	51	1705-35	Lever—Upstop .....
8	1018	*Lockwasher (1/4 Split) .....	52	1547-48	Pin—Upstop .....
9	1538-8	Locknut (1/4-20 Hex Hd.) .....	53	1540-70	Washer—Flat (.23 x 1/2 x .60) .....
10	1646-8	Key (#6 Woodruff) .....	54	1543-58	Washer—Rubber .....
11	6601-144-55	Blade Housing .....	55	2108-177-41	Ass'y—Wheel & Tire (L.H. 8 x 1.75)
12	1650-1	Retaining Ring .....	56	41-054	Screw (10-32 x 9/16 Ph. Hd.) .....
13	1552-2	Washer—Wave .....	57	1509-75	*Bolt (5/16-18 x 1 1/2 Hex Hd.) .....
14	1540-90	*Washer (1/2 x 1 x 1/32) .....	58	159	Washer (21/64 x 5/8 x 1/16) .....
15	2123-32	Ass'y—Axle (L.H.) .....	59	1538-6	*Nut (5/16-18 Hex Lock) .....
16	1540-86	*Washer (1/2 x 1 x 1/8) .....	60	1545-11	Clevis Pin .....
17	2674-39-40	Hub Cap .....	61	1643-49	Knob—Height Adjust .....
18	1513-103	Bolt (5/16-18 x 1 3/4 Special) .....	62	1539-67	Conduit Nut .....
19	1025	*Washer (5/16 Split) .....	63	2610-23	Adaptor—Muffler .....
20	2108-125-41	Ass'y—Wheel & Tire (8 x 1.75) ....	64	1605-516	Name Plate .....
21	2643-43	Knob—Height Adjust .....	65	1118-53-55	Ass'y—Cover .....
22	1117	Screw (10-32 Thd. Cutting) .....	66	1547-45	Rollpin .....
23	2639-56-55	Chain Guard .....	67	1548-15	Rollpin .....
24	2123-33	Ass'y—Axle (R.H.) .....	68	1658-120	Bearing .....
25	2556-20-55	Muffler Deflector .....	69	2616-434	Label (Yard-Man) .....
26	323	Pawl .....	70	1117-85	Ass'y—Lower Handle .....
27	1616-343	Label—A.S.A. ....	71	1643-47	Knob—Handle .....
28	1540-22	*Washer (19/32 x 1 1/4 x 1/16) .....	72	3699-89	Shroud—Engine .....
29	1540-17	*Washer (19/32 x 15/16 x 1/16) ..	73	1616-297	Label—Throttle .....
30	2117-86	Ass'y—Upper Handle .....	74	1526-1	Screw (#8 x 1/2 Phillips) .....
31	1008	Washer (13/32 x 3/16 x 1/16) ....	75	2643-44	Knob—Throttle .....
32	1108-176-41	Ass'y—Wheel & Tire (R.H. 8 x 1.75)	76	2721-8	Battery .....
33	39-012	Washer (1/2 x 15/16 x 1/16) .....	77	2132-103	Ass'y—Battery Retainer .....
34	1616-375	Label—Aux. Starter .....	78	1511-33	Bolt (1/4-20 x 1/2 Thd. Cutting) .....
35	1652-96	Sleeve Bearing (Bronze) .....	79	2188-9	Ass'y—Wire Harness .....
36	1539-78	Special Nut .....	80	1188-42	Ass'y—Extension Wire .....
37	1642-105	Height Adjust Spring .....	81	2160-11	Switch—Ignition .....
38	1652-105	Sleeve Bearing (Bronze) .....	82	1646-38	Key—Ignition .....
39	1652-104	Sleeve Bearing .....	83	1616-480	Label—Key Switch .....
40	1132-101	Ass'y—Bracket & Bearings .....	84	1657-44	Bushing—Wire Harness .....
41	1616-410	Label—Height of Cut .....	85	1772-1	Ass'y Battery Charger .....
42	1616-450	Label—Drive Control .....	86	1513-56	Bolt (3/8-16 x 1 1/4 Hex Hd.) .....
43	1650-10	Retaining Ring .....	87	1511-41	Screw (#10-24 x 5/8 Hex Hd.) .....
44	1540-43	Washer (21/64 x 15/16 x 1/32) ..	88	1624-188	Spacer—Upstop Lever .....

\*Standard Hardware Item—Purchased Locally.

# MODEL 2380-1



ALL UN-NUMBERED PARTS  
INTER-CHANGEABLE WITH  
OPPOSITE SIDE.

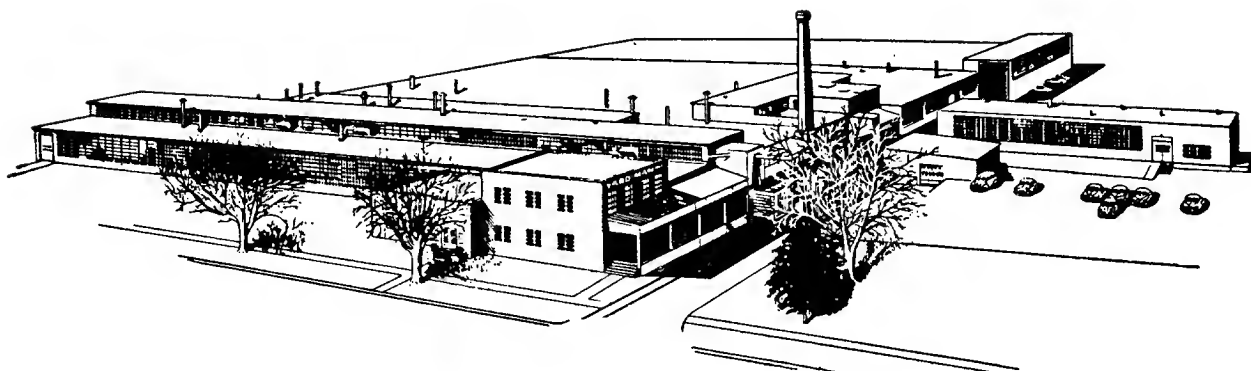
## PARTS LIST

### MODEL 2380-1

When ordering parts listed as L. H. or R.H.—determine the left or right hand side of your mower by standing behind the unit as you mow.

REF. NO.	PART NO.	NAME OF PART	REF. NO.	PART NO.	NAME OF PART
1	1548-27	Rollpin .....	23	1642-103	Clutch Spring .....
2	1638-46	Sprocket (13 Tooth) .....	24	1632-184	Jackshaft .....
3	1654-25	Chain .....	25	1513-104	Bolt—Shoulder .....
4	1121-16	Sprocket Assembly .....	26	1540-134	Washer (5/16 x 5/8 x 1/16) .....
5	1638-45	Sprocket (13 Tooth) .....	27	1147-13	Yoke .....
6	1652-97	Sleeve Bearing (Bronze) .....	28	1547-51	Handle Pin .....
7	1540-25	*Washer (7/16 x 1 x 1/32) .....	29	1540-86	*Washer (1/2 x 1 x 1/8) .....
8	1650-44	Retaining Ring .....	30	1545-30	Clevis Pin .....
9	1629-64	Retainer .....	31	1547-12	Hairpin .....
10	1018	*Washer (1/4 Split) .....	32	1132-114	Ass'y—Clutch Bracket .....
11	1513-108	*Bolt (1/4-20 x 1 1/8) .....	33	1724-18	Plate .....
12	1654-26	Chain .....	34	1095	Screw (10-32 x 1/2 Phillips) .....
13	1548-15	Rollpin (3/16 x 1) .....	35	1543-54	Washer—Flat (11/32 x 7/8 x .075) ..
14	1650-1	Retaining Ring .....	36	1548-21	Rollpin .....
15	1114-18	Sprocket Flex Coupling .....	37	1534-1	Nut (#10-32 Hex.) .....
16	1540-22	Washer (19/32 x 1 1/4 x 1/16) .....	38	1548-11	Rollpin .....
17	2632-155	Shaft—Rear Drive .....	39	39-012	Washer (1/2 x 15/16 x 1/16) .....
18	1540-133	Washer—Special .....	40	1652-119	Bearing .....
19	39-027	Washer (#10 Split) .....	41	1540-83	Washer (3/8 x 1 x .035) .....
20	1652-98	Sleeve—Bushing (Bronze) .....	42	1650-8	Ring—Retaining .....
21	1704-6	Shoe .....	43	1652-118	Bearing .....
22	2686-7	Clutch—Dog .....			

\*Standard Hardware Item—Purchased Locally



"You are cordially invited to visit  
our plant at any time."

## WARRANTY

This YARD-MAN unit is guaranteed for one year from date of purchase (90 days when used commercially) against defects in workmanship or material under normal use and service.

We agree to repair or replace without charge to the purchaser, including labor, any part proven to be defective within the warranty period, except the Engine which is the responsibility of the Engine manufacturer.

Parts for this YARD-MAN unit will be available for at least ten years from the date of purchase. This warranty will not apply to a unit which has been subjected to—misuse, negligence, an accident, or to a unit which has been altered in any way.

**YARD-MAN**

JACKSON, MICHIGAN